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NATIONAL TUBERCULOSIS ASSOCIATION

OCTOBER, 1955

THE TUBERCULIN TEST

***The time has come for a closer look* at the tuberculin test**

as an aid to tuberculosis control and eventual eradication.

What can it do and what are its limitations?

Should every community have a testing program?

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Patient Welfare and Public Understanding

Today, when fewer people die of tuberculosis, it is logical for the public to ask, as another Christmas Seal Sale approaches, whether the same concern for the welfare of patients as in the past is justified.

In planning our 1955 Christmas Seal Sale campaign we must not forget that tuberculosis is a chronic disease with many, varied effects, not only physical but also psychological, social, economic, and vocational. For some patients these effects are devastating.

Our physicians know that recognizing the patient as a person is not enough; they know that they must see him as a person with "problems" that have developed from his illness. Despite tremendous advances in medical treatment of tuberculosis, these accompanying personal and social problems have not disappeared.

In fact there is another problem that is growing in importance—the problem of age and tuberculosis. Today tuberculosis to a great extent is a disease of the aging, particularly of aging men. Probably 50 per cent of new cases reported are over 45 years of age. We are finding that older persons present new problems in medical treatment as well as new challenges to our rehabilitation specialists.

In many places, it must be admitted, hospital programs have been planned for younger people; senior citizens coming into tuberculosis hospitals today have complications caused by degenerative diseases in addition to tuberculosis, and therefore rehabilitation programs have to be greatly readjusted to cope successfully with these complications.

If the well man over 45 experiences great difficulty in finding a job, what is the job future for the man over 45 with tuberculosis? A great deal can be done if society and industry support the efforts of state vocational rehabilitation agencies and employment services to enlarge their interests to include the oldsters. Moreover, if communities adopt a responsive, helpful attitude toward patients who can recover sufficiently to rejoin the labor force, their future need not be bleak.

Then there is another, smaller group that remains chronically ill. Neither society nor industry has really made any provisions for this group which, some physicians believe, is increasing. We have the responsibility for establishing some kind of sheltered workshops or industries where these patients can work in order to avoid becoming chronically dependent persons.

Physicians realize that in treating tuberculosis they must not forget that implications of a treatment program are broader than merely healing lesions of the lung. Tuberculosis associations, too, must not forget that we are trying to cure a medical-social illness. We have not done all we can unless we make certain that our hospitals assume responsibility for beginning an individual's rehabilitation very early in the hospital treatment and that these rehabilitation plans are continued when the patient leaves.

Tuberculosis associations must take the lead in seeing that needed rehabilitation services are available in the community. This leadership that made associations so respected in the past is especially needed now for the rehabilitation of older patients. Since an increasing number of patients may never enter a hospital for treatment, associations must make certain that clinics and private physicians also recognize tuberculosis as a social problem.

The enormous rehabilitation problems, not only of older adults, but also of young adults and children, cannot be met by tuberculosis associations without adequate funds.

If the magnitude of today's rehabilitation problem is presented so that the public understands that patient welfare depends upon its generosity now more than ever before, the public will continue its strong support of the tuberculosis control movement.—*A. Ryrie Koch, director, Rehabilitation Division, NTA.*

bulletin

NATIONAL TUBERCULOSIS ASSOCIATION

VOL. 41 NO. 9

Published monthly except August at 404 North Wesley Ave., Mount Morris, Ill., by the National Tuberculosis Association for persons interested in public health and administrative aspect of tuberculosis control, and made possible through the annual sale of Christmas Seals. The editors welcome articles for possible publication. If any article deals with a subject on which there may be differences of opinion, the BULLETIN will be glad to consider presentation of varying opinions in the same or subsequent issues. Editorial Office: 1790 Broadway, New York 19, N.Y.

ELLEN LOVELL, Editor; WILLIAM H. FRIEDMAN, Associate Editor

Entered as second-class matter Jan. 30, 1950, at the post office, Mount Morris, Ill., under the Act of Aug. 24, 1912. Acceptance for mailing at special rate of postage provided for in Section 3440. Act of Feb. 28, 1925, authorized Jan. 30, 1950.

The Tuberculin Test

One of the Most Specific and Reliable Tests Known to Medicine, the Tuberculin Test Is Valuable in Diagnosis, Analyzing Control Efforts, and in Case Finding

by Floyd M. Feldmann, M.D.

Dr. Feldmann is medical director of the National Tuberculosis Association. He joined the NTA staff in 1949 as assistant to the managing director, a position he held until his appointment as medical director this year. Prior to joining the NTA Dr. Feldmann served as medical director, Central Coordination and Analysis Office, and executive secretary, Tuberculosis Study Section, United States Public Health Service. A graduate of the University of Minnesota, where he took his medical degree, Dr. Feldmann received a doctorate in public health at Johns Hopkins University. He served as district director of the Minnesota Department of Health, 1936-40, and as health officer for the city of Rochester, Minn., from 1941 until he joined the Public Health Service in 1943.

The time has come for a closer look at the tuberculin test as an aid to tuberculosis control and eventual eradication. What can it do and what are its limitations? Should every community have a testing program?

Unfortunately, simple answers universally applicable cannot be provided from the information now available. Those who attempt the best use of this tool must study their own problems from many angles in the light of the known facts and must follow this with studies of the results obtained by practical experience.

This may sound formidable but will not be too difficult if careful consideration is given to some guiding principles.

The tuberculin test properly done is one of the most specific and reliable tests known to medicine. With very few exceptions, persons who harbor live tubercle bacilli in their bodies will have an easily demonstrable skin sensitivity to the unique proteins produced by these organisms.

This fact makes it possible to identify those individuals in a group who are actual or potential victims of the disease. Unfortunately, the test does not reveal the location of the infection in the body, its extent, its activity, nor when it might become a threat to health.

Three Major Uses

Nevertheless, the tuberculin test is widely used for three major purposes. First of all, it is used for diagnosis. When a person has findings suggestive of tuberculous disease, a negative test is very good evidence that some other condition is responsible for the illness. If the test is still negative when repeated after 30 days, tuberculosis can be ruled out. A positive test is not so conclusive because many people harbor tubercle bacilli in their bodies without symptoms and without significant harm to their health. However, a positive test is of great value in arriving at a diagnosis if it is known to have become positive recently, and even single positive tests are significant in young children and in some population groups where infection rates are low.

Secondly, the test is used for information on the status of tuberculosis control efforts. Tuberculosis infection rates in various age or other groups of the population, and particularly the trends in such rates over a period of years, will provide reliable measures of new infections taking place and therefore, indirectly, of the number of active open cases of tuberculosis not under adequate isolation and treatment. The epidemiological information obtained is useful in determining which population groups need more attention.

Thirdly, the test is used to screen out those individuals who have been infected. This use of the tuberculin test as a first step in finding hidden cases of the disease is at once simple and complicated. Its efficient utilization depends on many factors which will be discussed below.

Tuberculin Test Techniques

For screening purposes in case finding the intradermal test (Mantoux) is preferred. A special syringe and a small hypodermic needle are used to introduce 0.1 ml. of dilute tuberculin (Old Tuberculin or Purified Protein Derivative) between the layers of the skin of the volar surface of the forearm. For technical details see the 1955 edition of "Diagnostic Standards and Classification of Tuberculosis," published by the National Tuberculosis Association.

Under some circumstances "patch" tests may be preferred. In this country the "Vollmer" patch test is commercially available and has been most commonly employed. It consists of a strip of adhesive tape with three squares of thin blotting paper on its under side. The two end squares have been soaked in tuberculin and dried. The middle square has been soaked in the broth used for making tuberculin and serves as a control to indicate any sensitivity to materials in the tuberculin preparation other than the tuberculin proteins themselves.

After cleaning the skin of the forearm, or some other hairless and relatively accessible part of the body, with acetone, the patch is firmly and smoothly applied with care to see that all edges are firmly attached to the skin. After 48 hours the patch is removed, and after another 48 hours the result is read.

The appearance of a reaction to the patch test is different from that resulting from an intradermal test so that it is extremely important that the reader be experienced in making interpretations. This difficulty in reading probably accounts in part for the wide variation in the efficiency of the patch test as reported by different investigators.■

In general the patch test is regarded as being less sensitive than the intradermal test, and to be less satisfactory for testing individuals over the age of

12. Some limit its use to children under six years of age.

There are many variations of the patch test. Sometimes a tuberculin jelly is used under an adhesive plaster, and different tuberculin strengths may be employed.

Other techniques of tuberculin application involve scratching or puncturing the skin through liquid tuberculin preparations. These are widely used in other countries but are not commonly used here. More detailed information on methods practiced abroad may be obtained from the booklet "BCG and Vole Vaccination" by K. Neville Irvine, published by the National Association for the Prevention of Tuberculosis, Tavistock House North, Tavistock Square, London, W.C. 1, England.

Advantages and Disadvantages

For practical purposes, the advantages and disadvantages of the different tuberculin techniques must be weighed in the light of conditions existing in the community where a group testing program is being planned. If the intradermal test is to be used, a standardized preparation of P.P.D. is preferred since it is the purest form of active proteins obtainable. However, O.T. is still being used by many with satisfactory results. Expense of material is not a factor because the cost per dose is extremely small for either one.

The advantages and disadvantages of intradermal testing may be listed as follows:

Advantages:

1. With good technique few reactors will be missed.
2. The dosage and depth of administration can be accurately controlled.
3. The test can be read within 72 hours.
4. The test can be read with precision and may be measured.
5. The test cannot be removed accidentally or tampered with.
6. The materials and equipment are inexpensive.

Disadvantages:

1. Some people have an aversion to the use of a needle. (However, it should be said that a good preliminary education program will ensure close to 100 per cent participation in most communities.)
2. Special equipment is necessary.
3. Equipment must be sterilized.
4. Tuberculin solutions do not maintain potency more than a few days.
5. The test can be given only by trained personnel, usually physicians.

If patch tests are being considered one may list the favorable aspects as follows:

1. No needle is used, and the test is thereby psychologically acceptable to more people.
2. No special equipment is necessary.
3. No sterilization of equipment is necessary.
4. The prepared patches remain potent for several months without refrigeration.
5. Under supervision the patches may be applied by volunteers without previous training and experience.

Unfortunately, there are also some unfavorable aspects to keep in mind:

1. The patch test is not as sensitive as the intradermal test and some reactors will be missed. No one has yet determined how serious this may be in terms of active cases undiscovered.
2. The dose of tuberculin cannot be controlled and errors may result in both directions. A few severe reactions occur as well as false negatives.
3. The time elapsing from test to reading is longer than that of the intradermal test which complicates scheduling of tests.
4. The reading of the patch test is more difficult than the reading of the intradermal test.
5. Precise measurements of the reactions are impossible.
6. The patches are external and frequently become detached either from tampering or from perspiration skin motion, clothing friction, or other accident.
7. In terms of materials used the patch test is more expensive per individual tested. This may be an important item if large numbers are to be tested.

Those who are planning the program must decide which groups in the population should be tested. Theoretically if one is to discover all infected individuals, everyone in the community shoud be tested, and in some less populous areas this has been attempted. Two countywide programs have been completed in Minnesota and much useful information on infection rates in different age groups was obtained. In large cities, however, this presents formidable problems and so far no one has had the temerity to try it.

If the whole population cannot be tested, a sampling of various groups in the population may be practical and valuable. Such a sampling must be done with expert statistical guidance, since groups making up communities vary tremendously and no one formula will fit more than one community. It is extremely important that a program to determine infection levels and trends in a community include adults as well as children. It is regrettable that current testing programs so frequently neglect the adult population. The result is a complete lack of information about the very groups from which come the bulk of tuberculosis cases.

Most Accessible Groups

If the testing program must be limited, the most accessible groups for testing are school children and those confined to institutions. Undoubtedly some indication of the amount of active tuberculosis in a community can be obtained by limiting the testing to children.

Again the ideal would be to test all children every year, including those who had positive tests previously. Only in this way could one determine the trends accurately, fix the time of infection for each individual and find out how many and which children eventually lose their sensitiveness to tuberculin and presumably no longer harbor live tubercle bacilli.

If all children cannot be tested every year, it would be advantageous to test all of them the first year and selected age groups or grades in subsequent years. This involves a selection of grades to be tested. At present, expert opinion seems to favor annual testing

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Tuberculosis in Korea

Despite One of the World's Highest Rates, Post-War Chaos, and a Heavy Defense Burden, Korea Is Facing Its Tuberculosis Problem With Courage and Determination

by Howard A. Rusk, M.D.

Dr. Rusk is professor and chairman, Department of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, associate editor of the *New York Times*, and president, International Society for the Welfare of Cripples. A former president of the American-Korean Foundation, and currently chairman of its Board of Directors, Dr. Rusk made two visits to Korea in 1953 for the Foundation. Dr. Rusk originated and directed the Army-Air Force Convalescent-Rehabilitation program during World War II. His article is a contribution from the Committee on Public and Medical Relations of the American Trudeau Society.

That it is difficult to determine tuberculosis prevalence in Korea is readily understandable. It was not until the latter part of the 19th century that western medicine was introduced to Korea by an American Presbyterian missionary physician, Dr. H. H. Allen.

Prior to that time, all medical treatment was dependent upon herb medicine in which pulmonary tuberculosis was known as "Lotcha", "Chunsi" or "Chunkyoo", meaning a chronic, communicable and incurable disease. In the ancient times in Korea it was believed that tuberculosis was caused by a germ known as "Tcha-chyung" which infiltrated and bred in the lungs and that the germ would become visible to the naked eye after three generations. Treatment consisted of prolonged intake of seal, eel and children's urine which it was believed would eradicate the germs.

Japanese Bring Modern Approach

In 1931 Korea's first tuberculosis sanatorium was established at Haeju in North Korea, by another American Presbyterian medical missionary, Dr. Sherwood Hill, but it was not until 1942 when the Korean Branch of the Japanese Anti-Tuberculosis League was organized that modern epidemiological approach to tuberculosis control was undertaken.

This, as well as all of Korea's health programs, broke down, however, in 1945 when the nation was liberated from Japanese rule. With the departure of the Japanese professional and technical health personnel who had occupied the nation's posts of responsibility for 35 years, the primary need was for competent, trained personnel. Through Korea's own resources and outside aid from such groups as the Rockefeller Foundation, some heartening advances were made in training of personnel both in Korea and abroad.

But then came the 25th of June, 1950, when North Korea made an attack on South Korea. In the fighting that followed, in which the tide of war passed over most of the country twice and some parts four times, 70 per cent of the medical facilities were destroyed. Medical personnel were scattered, many killed and large numbers captured by the Communists. Nearly 3,000,000 or 13 per cent of the population became refugees or displaced persons. Civilian casualties totaled nearly one million with over 350,000 dead. Water supplies, purification plants and environmental health services were destroyed or irreparably damaged. Inflation of currency wrecked the financial structure of the medical and health services. Following in the wake of destruction came the inevitable epidemics of typhoid, dysentery, typhus, smallpox and encephalitis.

The Situation at War's End

The health situation in Korea at the end of the fighting in 1953 can be better understood if its problems are projected

Home care in Korea—a visiting nurse supervises a tuberculosis patient.

onto any American city of 25,000 such as Jefferson City, Missouri.

Demolish one-fourth of the houses and unroof and damage another fourth. Destroy the sewerage and water systems beyond repair. In this city there are 1,250 people with tuberculosis, of whom 300 are acutely ill. Ninety per cent of the population is infected with intestinal parasites. Several scores of persons have leprosy or are blind. Everyone is hungry on an 1,800-calorie diet and cold in the winter when there is fuel enough only for essential cooking. To meet all the medical needs of these poor unfortunates, there is only one poorly trained medical practitioner. Add to these conditions fear, anxiety, and despair, and you have the health picture in Korea in 1953.

Recognizing all of the many factors which cause it to be an "estimate" only, the Division of Tuberculosis Control of the Korean Ministry of Health and Social Affairs, a physician trained in tuberculosis control in the U.S., estimates that the Republic of Korea with a population of some 20,000,000 has about 50,000 deaths from tuberculosis annually, a death rate of about 250 per 100,000 population, and that there are approximately 500,000 active cases and 600,000 inactive cases of the disease.

Despite the enormity of the problem, some specific and tangible steps toward its eventual solution have been taken by the Republic of Korea, by such public agencies as the World Health Organization, United Nations Children's Emergency Fund, United Nations Korean Reconstruction Agency, United States Foreign Operations Administration, and the Korean Civil Assistance Command (U.S. Army), and by numerous voluntary agencies such as the Rockefeller Foundation, War Relief Services, Church World Service, and the American-Korean Foundation.

TB Control Agency Established

First in importance is the fact that in 1953, with funds made available by the American-Korean Foundation, a Division of Tuberculosis Control headed by a physician trained in the U.S. and adequately staffed was established in the Korean Ministry of Health and Social Affairs to coordinate the plans and activities of all of these groups. Despite the best efforts of the Korean Civil Assistance Command, prior to this time there was little coordination and planning. These efforts have now resulted in the development of a six point long range program for tuberculosis control.

The Objectives

First objective in the new program is health education using the same techniques used in the United States and other nations. Korea, for example, now has a Korean National Tuberculosis Association with an annual Christmas Seal campaign and a nationwide "Tuberculosis Control Week".

The second objective is the expansion and refinement of the national BCG vaccination program which was started in 1943 on a small scale. By the end of 1953, in a joint program undertaken by the Korean Ministry of Health and the Korean Civil Assistance Command, 1,069,105 tuberculin tests had been administered in connection with the vaccination program, and the goal for 1954 was 800,000, of which 300,000 would be retested. Expansion of facilities and training of personnel are now underway so that Korea may produce its own BCG vaccine with a goal of 1,000,000 inoculations annually by 1958.

The third objective is expansion of the mass chest X-ray program, concentrating on the older school population. In 1954, Korea had 562,985 students in middle schools, high schools and colleges. X-ray surveys in 1954 were limited to but 70,000 of this group but it is hoped that this may be increased to a goal of 500,000 by 1958.

Fourth is the expansion of treatment facilities and establishment of outpatient programs for ambulatory treatment. To care for 500,000 tuberculosis cases needing hospitalization, Korea had in 1953 but slightly over 2,000 tuberculosis beds. It is hoped that this can be increased to 8,000 by 1958. Nearly 1,000 new beds were added in 1954. In addition it is planned that the Ministry of Health and Social Affairs will organize 250 tuberculosis ambulatory treatment centers during the next five years. There are many international health workers in Korea, however, who doubt if sufficient funds, equipment, facilities and personnel will be available for such an ambitious undertaking.

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These children are being cared for in a Korean Red Cross tuberculosis sanatorium for orphans.

An Essential Aspect of Tuberculosis Control Is the Training of Young Teachers In Pulmonary Diseases To Carry On Effective . . .

by Julius L. Wilson, M.D.

Director of Medical Education, American Trudeau Society, and Director, Henry Phipps Institute

Medical Education

The vital importance of recruiting and training young physicians as teachers of pulmonary diseases is focusing attention on medical education, the natural complement of medical research. As the generation of teachers with arrested tuberculosis passes on, young physicians must be trained to carry the torch of education in tuberculosis and other pulmonary diseases in our rapidly expanding medical schools.

Because a program of medical education is essential for tuberculosis control, the Committee on Medical Education of the American Trudeau Society, under the chairmanship of Dr. H. McLeod Riggins (1951-54), set an objective of having a good teacher in pulmonary diseases in every medical school of the United States.

Long-Term Program

When the ATS Division of Medical Education came into being in 1953 a fellowship program based on long-term goals was already under way. The program of teaching fellowships for medical residents had begun as an outgrowth of the Research Fellowship Program established in 1948. In 1949 the ATS Fellowship Board had awarded the first teaching fellowship and 25 additional awards were made in succeeding years.

The administration of seven of these teaching fellowships already in existence was taken over by the Division of Medical Education in 1953. The following year the budget was doubled, making it possible to increase the number of fellowships to 15, including three renewals. Despite this rapid expansion of program, our funds were still inadequate to provide for all acceptable applicants.

This year the American Trudeau Society introduced new and more substantial awards known as "Trudeau Fellowships" to be given to young men sufficiently trained to hold academic rank but needing several years of support to set up the teaching of pulmonary disease in medical schools.

Trudeau Fellowships

The first Trudeau Fellowships went to Dr. William R. Fifer of Minneapolis and Dr. Edward A. Gaensler of Boston. Dr. Fifer attended Carnegie Institute of Technology and Syracuse University and is a graduate of the College of Physicians and Surgeons, Columbia University. He interned at the University of Pennsylvania Hospital and held a fellowship in internal medicine at the University of Minnesota. For the past year Dr. Fifer has been an instructor in internal medicine and chief resident at University Hospital, University of Minnesota. He is receiving additional financial support from the University.

Dr. Edward A. Gaensler graduated from Haverford College and Harvard Medical School, interned at Boston City Hospital, and was assistant resident in surgery and thoracic surgery and chief resident in thoracic surgery at Boston City Hospital and Public Health Service Research Fellow in Pulmonary Physiology. As an associate in medicine, Harvard Medical School, 1950-53, he organized postgraduate courses in pulmonary physiology for the ATS. In addition to his ATS award, Dr. Gaensler is receiving support from Boston City Hospital.

Resident Fellowships

In 1955 there were 28 applicants for Resident Fellowships. Fifteen applicants, including two renewals, were selected to begin work on July 1 in 14 hospitals in 11 different states.

The fine response of state and local tuberculosis associations to requests for matching funds is illustrated by the fact that 10 of these fellowships include contributions from the following associations: the Mecklenburg County (N.C.) Tuberculosis and Health Association, the New Jersey Tuberculosis League, the New York Tuberculosis and Health Association, the Kansas Tuberculosis and Health Association, the Iowa Tuberculosis and Health Association, the Philadelphia Tuberculosis and Health Association, the District of Columbia Tuberculosis Association, the State Charities Aid Association of New York, the Albany County (N.Y.) Tuberculosis Association, the Anti-Tuberculosis League of Cincinnati, O., and the Ohio Tuberculosis and Health Association. In addition, the Washington Tuberculosis Association has contributed a sum for use in either the teaching or fellowship program of the ATS without specific recommendations.

Budgeting For Education

An important development in association support for teaching fellowships is the initiation by the State Charities Aid Association of New York and the Ohio Tuberculosis and Health Association of a continuing provision for medical education in their annual budgets.

In the past the law of supply and demand did not apply in the enlisting and education of our great medical leaders against tuberculosis. The "ubiquitous" tubercle bacillus took care of that. The present is different and the laws of economics have not been repealed. For the future a fellowship program on a broad base of financial support must meet the challenge of the new situation with a far-sighted plan to train teachers and specialists as the need for this leadership against the tough residue of tuberculosis and in the widening field of chronic pulmonary diseases develops.

A Survey Conducted By the NTA And The PHS Is Providing Information On A Subject Important For Effective Tuberculosis Control . . .

Why People Get X-rays

by Sol S. Lifson
Director of Health Education,
National Tuberculosis Association

For several years the National Tuberculosis Association and the United States Public Health Service have been conducting a study on why people get chest X-rays. Although the study will not be completed until 1956, preliminary, partial findings are available and were presented at the NTA Annual Meeting in May by the author of this article and by Godfrey Hochbaum, Ph.D., of the USPHS.

Preliminary data from the study indicate that only one sixth of those responding to the study said that they had never had a chest X-ray, and that a greater percentage among older adults had failed to obtain X-rays than among younger adults.

Those who have had X-rays fall into three main groups: those who obtained X-rays voluntarily, those who were X-rayed because of some symptom, and those who got X-rays because of social pressure or outright compulsion.

The Voluntary Group

The largest group, 50 per cent, said that they obtained chest X-rays voluntarily in the interest of good general health. For many years tuberculosis associations have been stressing the importance of good general health as a means of preventing tuberculosis. It seems that their efforts also have helped stimulate the obtaining of chest X-rays.

From a program standpoint we should continue to stress general health maintenance even more, since an additional 10 to 12 per cent of those who were X-rayed voluntarily said that they got X-rays because of concern about lung cancer or heart trouble. Apparently people are beginning to be aware that the X-ray reveals pathology other than tuberculosis.

Approximately 16 per cent of those who got X-rays did so because they were aware of a symptom that suggested tuberculosis to them. This reliance on symptoms is important.

An illustration of reliance on symptoms comes from the study data which indicate that, among both those who had and who never had an X-ray, some persons believed they would never get tuberculosis, but, if they did, they would know when they became infected. One-half of the respondents holding these beliefs had never had a chest X-ray in their lives; those holding these beliefs who did get X-rays did so because of what they thought were suspicious symptoms.

Are people fully aware of what tuberculosis symptoms are? In the last 10 to 15 years the tuberculosis associations have been stressing that tuberculosis can exist for a long time without an individual knowing that he is infected. In view of the presence of the attitudes that tuberculosis is no longer a problem and that the individual will be aware of symptoms if he does become infected, I wonder whether we should again refer to symptoms in our health education.

People are becoming alert to the seven danger signals of cancer. Should we also make reference to the danger signals of tuberculosis, stressing that it can exist for a long time without symptoms and that the chest X-ray is the easiest and best way to detect it early? In other words, should we have a combination emphasis in our educational program? When final data are available, a decision on this point should receive first consideration.

About 15 per cent of those who got chest X-rays did so because some person or group exerted pressure on them, or because of some type of compulsion such as X-ray requirements for employment or as a part of an employer's health maintenance program. This situation, it seems to me, holds promise for us if we can increase efforts to have the employing groups consider the chest X-ray as a routine condition of employment. I do think, though, that employees should understand why the X-ray is required.

The other portion of this group, those who had X-rays because of social pressure, interests me more because I think it indicates factors with great meaning for our programs. This group illustrates the force social approval and group decisions have upon the attitudes and behavior of the indivual, whose resolve to have a chest X-ray is strengthened by formal or informal discussions on tuberculosis.

Need To Intensify Efforts

We in tuberculosis association work have long accepted this method in our educational programs. We need to intensify our efforts to increase group meetings which will permit individuals to clarify some of their attitudes toward tuberculosis through face-to-face discussion. It must be remembered that the data reveal that 80 per cent of those who believed they could get tuberculosis without knowing it, and who also believed that the chest X-ray detects the disease, proceeded to get an X-ray, and that voluntary chest X-rays were obtained by 94 per cent of those who also knew that early detection of tuberculosis is important.

We must help people acquire the basic beliefs which lead them to get chest X-rays, the belief that they can contract tuberculosis, that the chest X-ray will detect the disease, and that early detection is beneficial. The many persons who hold contrary beliefs must be helped to a greater understanding of the nature of tuberculosis.

On the basis of this study and what we know about education, we must find ways to dispel the erroneous beliefs held by a fairly sizeable portion of our adult population, particularly the older population. We must also find ways to locate and influence natural leaders to be found in all groups, for these are the people who set the pattern of action followed by the group.

Clinical Psychology

A Two-Year Program at the Martinsburg, W. Va., VA Center Shows How This Field Provides Insight Into Psychological and Emotional Problems of TB Patients

by Claire M. Vernier, Ph.D.

Dr. Vernier has been chief of the Clinical Psychology Section at the Veterans Administration Center, Martinsburg, W. Va., since 1951. She received her Ph.D. from the University of California at Berkeley. Following an instructorship at Wellesley College, she served with the Federal Security Agency and the Office of the Secretary of War, but later returned to the clinical psychology field as a member of the staff of St. Elizabeth's Hospital, Washington, D.C.

While the advent of clinical psychology as a profession working in the specialized field of tuberculosis treatment and prevention is a relatively recent development, the increased demand for such services obviously does not reflect a sudden awareness of the important role psychological and emotional problems play in illness and convalescence.

On the contrary, for many centuries physicians and other professional groups have been directly concerned with the intricately inter-related problems of how illness affects the patient, and how the patient himself influences his recovery. As is so often quoted, it is not the disease which is treated, but rather the patient who has the disease.

Many external and internal factors determine the effect on a person of a handicapping illness, such as tuberculosis. His previous experiences, the kind of person he is, and specific family and other social pressures all influence his adjustment to the disease, his response to treatment, and his attitudes towards changes to be made in living patterns. Unlike most other serious, long-term diseases, tuberculosis often carries an added burden of social isolation and rejection.

Three Major Question Areas

There are three major question areas in the psychological aspects of tuberculosis:

1. What are the effects of the illness and of the treatment methods on the patient?
2. What emotional problems can precipitate the illness? Is there a definite type of personality which is specifically vulnerable?
3. What are the relations between the patient's emotional conflicts and the course of his disease?

A review of the literature on the general topic of psychological aspects provides a volume of diverse and generally subjective theories regarding these question areas, but to date none of the questions has been answered conclusively and few significant experimental findings are available in current literature. The material in this article has been limited to the research program carried out at the Veterans Administration Center, Martinsburg, West Virginia.

Martinsburg Program

This program has been based on the fundamental premise that psychology, as the discipline concerned with the scientific study of behavior, should be able to provide the medical staff with needed information concerning the patient's attitudes towards his illness, psychological factors influencing his acceptance of and response to medical treatment, and the particular emotional conflicts which may affect his adjustment in the hospital and the length of his stay.

Since August, 1952, a battery of psychological tests has been given to all new patients admitted to the tuberculosis service as soon as they have been cleared as physically able to take the tests. The testing takes about 45 minutes and is done in groups of 15 to 30 patients at a time. Only the so-called "projective technique" type of clinical psychological test is used, in which an ambiguous or unstructured type of situation is presented to the person and he is asked to respond in terms of how he sees it. There are no right or wrong answers.

One example is the "ink-blot" test, recently described in popular magazines, which requires the person to say what the blots most resemble. What the individual does on such tests is necessarily a reflection of him as a total and unique person. Test reports focus on providing the physician with a short description of factors in the patient's reaction to his illness that may be important in helping him to adjust to the hospital and the treatment program.

Major conclusions derived from the testing of more than 550 patients are summarized in terms of the three question areas indicated above.

Effects of Illness on the Patient

There is clear confirmation of the critical role played by emotional problems in the patient's reactions to his illness. Various kinds of reactions found could be classified as follows:

Normal — concerned, cooperative, eager to follow treatment; *denial*—does not accept concept of self as ill or in need of treatment or change in activities; *anxious*—worried and fearful, apt to be accompanied by restlessness, not sleeping well, loss of appetite and other physical symptoms, easily disturbed by minor annoyances; *depressed*—discouraged and hopeless, feels there is "no use"; *over-accepting* — relaxed and comfortable, illness appears to serve as a solution to previous long-standing emotional conflicts by satisfying certain needs, as avoidance of responsibility, justification of failures, etc; *exaggeration*—illness provides a partial solution to previous problems but must be dramatized and recognized by other people, accompanied by complaints, demands for attention, etc.; *increased emotional disturbance*—the illness serves as an additional problem to increase previously existing acute emotional conflicts, extreme examples being suicidal attempts or psychotic flareups; *indifference or not understanding*—because of

other factors, such as mental deficiency or a previously existing psychosis, the illness has little meaning to the patient.

Factors Precipitating Illness

There is no evidence of a single type of personality structure appearing to be unusually susceptible to tuberculosis. Nor is there any indication of specific constellation of factors or problems suggesting a predisposing influence. Emotional problems may or may not have been present previously. Personalities range from normal, well-adjusted individuals to acutely disturbed psychotics, with all degrees and kinds of emotional problems falling in between.

Factors Influencing Treatment

As a first problem, the major emphasis in formal research studies at the Center has been investigation of factors determining whether a patient will complete hospitable treatment or will leave against medical advice. Psychological tests given one or two weeks after the patient's first admission showed an 80 per cent accuracy in predicting which patients would stay and which would leave against advice. Psychological factors important in determining which patients will leave may be described roughly as "poor self-discipline" and seeing the hospital as an empty, unsatisfying place without barriers to prevent departure.

Implication of Findings

The next area for investigation is the implication of these findings for preventing interruption of treatment. Research studies are now in process to determine the validity of the following hypotheses: a majority of patients can be kept in the hospital if the physician deals with emotional problems as a regular part of the medical treatment and the doctor-patient relationship; a percentage of cases may be helped by group psychotherapy—of 23 patients identified as potential leaves against advice who were included in a psychotherapy group, only three left the hospital, seven were still there, and 15 completed treatment and were discharged as inactive cases; a small number of cases may require additional intensive individual psychotherapy to resolve emotional problems in order to stay in the hospital; for about five per cent, or less, there would appear to be nothing that can be done to keep them in the hospital.

The problem of the effects of toxicity, illness, and treatment methods on personality is extremely complicated. One of the major difficulties is the need for data for patients prior to the onset of the illness.

In summary, specific conclusions based on the two-year program at the VA Center include the following: a group testing is more efficient and acceptable; projective tests yield dynamic and integrated pictures of the patient as an individual and provide valid bases for prediction of subsequent actions; patients who will not remain in the hospital to complete treatment can be identified accurately upon first admission by psychological tests; group psychotherapy appears effective for a small number of patients in preventing leaves against advice; although there is no evidence of any one type of personality or any specific combination of emotional problems which appear particularly susceptible to tuberculosis, nevertheless the individual personality clearly determines to a large extent his reaction to his illness, hospitalization, and treatment; and, finally, reaction to the illness can serve as an efficient basis for predicting the adjustment in the hospital and the response to treatment.

Tuberculin Test

. . . *Continued from page* 136

of children entering school, a grade midway, such as the sixth, seventh or eighth, and those about to leave school (usually twelfth graders). This will give some information on infection rates and trends and will provide some basis for case finding among the contacts of new reactors, about which more will be said later.

An important facet of every school testing program is the opportunity to tuberculin test all adults employed by the school system. All teachers, bus drivers, food handlers, custodial and maintenance employees can be easily reached and are important because of their close contacts with the children. Although the percentage of active cases in these adults will be small, there are numerous reports on record of sharp epidemics of tuberculosis in schools traceable to a teacher or other employee with unsuspected active disease.

Examination of all older children and adults by X-ray without a preliminary skin test is simpler and will reveal conditions other than tuberculosis but provides no basis for epidemiological follow-up. If finances, personnel, and facilities permit, it would be preferable to give tuberculin tests and chest X-rays to everyone in this older group.

Editor's Note: This is the first of two articles by Dr. Feldmann on tuberculin testing to be published in the BULLETIN. *The second article, to appear in the November issue, will discuss community participation in tuberculin testing programs and the importance of education to win such participation, problems involved in the follow-up program, and the need for accurate data on the case-finding potential of the tuberculin test.*

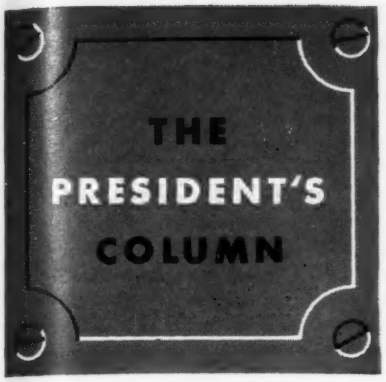
Recent Staff Change In NTA Personnel Division

Francis Donahue, an associate in the National Tuberculosis Association Personnel and Training Division, has resigned to accept the position of program director with the New Jersey Tuberculosis League. Mr. Donahue was in charge of the NTA program for personnel recruitment and consultation on personnel practices and salaries.

Miss Gertrude Szadzewicz, assistant executive secretary of the Hampden County (Mass.) Tuberculosis and Public Health Association, has been named to replace Mr. Donahue. Prior to joining the staff of the Hampden County association Miss Szadzewicz was executive secretary of the Berkshire County (Mass.) Tuberculosis Association.

Grant-in-Aid Contribution

The Hamilton County Tuberculosis Association, Noblesville, Ind., recently made a contribution to the NTA grant-in-aid fund.



Edward T. Fagan
President
National Tuberculosis Association

Today they are individuals like you and me—going about their personal affairs, living with their families, playing with their friends. Suddenly, possibly with no warning, they are plunged into nightmare. They are no longer persons—they have become tuberculosis patients in an unfamiliar and frightening hospital or sanatorium setting. Isolated, friendless, terrified, alone, incapacitated — surrounded by strangers experiencing the same plight and conditions.

First the physicians come, doctors for body *and* mind. Then come the technicians, the nurses, the medical social workers, the rehabilitation counsellors, all the people on whom recovery depends, all the trained, qualified personnel who will help find the path to the road back, the mentors to complete health.

Slowly the fog lifts and perspective returns, terrors are faced and conquered. The strivings and the victories of surrounding fellow sufferers encourage and make the road leading to recovery shorter, for it is not traveled all alone. And the family and friends are helped and taught, too; there is understanding, and finally there is health and home and the patients become individuals again.

For nearly 50 years hospitalization and bed rest have been prescribed for the tuberculous. In this setting evolved the highly successful, though fairly recent, "team" approach in treatment. In a central location it became possible for the patient to receive all the specialized attention and care leading him to recovery and showing him how to *stay* well.

About 10 years ago, a new era began—chemotherapy. With the successful use of new drugs in tuberculosis has come a new treatment theory. Complete bed rest is not considered imperative in most types of tuberculosis. There is no longer unanimous medical agreement on how much bed rest is essential or even on the duration of bed rest. In many instances the general practitioner rather than the specialist is in charge and tuberculosis beds may be as scattered and as far apart as the individual homes of individual patients. Obviously this makes functioning of an in-hospital "team" an impossibility.

If the patient is treated at home we assume that he is either visited by a physician or else he goes to visit one. We have every faith that the patient's doctor properly treats the illness—we trust that psychiatric assistance is recommended if the emotional impact of the diagnosis and illness proves too traumatic an experience for the patient's adjustment. But, by whom, where, and how are the rehabilitation and education jobs being handled?

New Problems

Regardless of where the treatment is, with the terrifying diagnosis come the confusions and the fears. Now there are new problems: how does the patient being treated at home get to understand the problems of tuberculosis and learn their solutions? Learning to live with tuberculosis presents many questions. Actually the solution of many of these problems is not too difficult for patients who have spent some time in an institution and have been exposed to the indoctrination which is a part of all good hospital care.

But what happens to those patients who have never been in a tuberculosis hospital or sanatorium? What is the best way to reach them? And, of almost equal importance, how can their families be reached?

We cannot turn our backs to these problems. These people need our help. They must be taught to understand and accept their illness, their life plans and work must be discussed and evaluated with them. Where retraining and re-evaluation must be considered, it must be started early. What of the "hardening" period? What of the dangers of breakdown? Where do we find the patients? How do we tell them of these vital facts? How can we help tuberculosis patients readjust to living at home, harboring an infectious disease within their bodies? How can such a patient be given a sense of personal integrity? How can we help him hold a continuity of experience with his family while his illness sets him apart from them? How can we give him the needed emotional support in times of difficulty within himself or with his family? How can we keep him from unrealistic future planning?

We are faced with a tremendous challenge to the skill and ingenuity of the people in the tuberculosis field. A problem calling for initiative, imagination, and cooperative effort. Actually the solutions to the problems now loom as community responsibility involving, as they do, not only individual pain, but also the danger of spread of infection. It becomes our job now to spark and lead the search for answers to the problems brought on by the new era—the era of chemotherapy and home care. To develop rehabilitation services in the new treatment setup we must appraise and evaluate the needs for such services.

A Community Job

With the need established, we must next enlist the aid of other agencies involved to correlate all necessary information on the subject. We must discover what are the gaps and lacks in community rehabilitation services, then find a way to fill them. It is our job to bring together community agencies and forces—inform them of the problem and needs—enlist their support and motivate them to action.

As usual, the persons who most urgently need rehabilitation services are the same ones who can least afford to pay for it.

There is no easy solution but tuberculosis associations are accustomed to meeting challenges, to solving problems. This is the purpose for which they were organized. It is still the mainspring of their activities.

I have every faith that we will win here, too!

Prompt Action Is Important
If You Want New York City Hotel
Accommodations Of Your Choice At The . . .

NTA Annual Meeting

The 1956 Annual Meetings of the National Tuberculosis Association, the American Trudeau Society, and the National Conference of Tuberculosis Workers will be held at the Hotel Statler, New York, May 20-25. Some program sessions will be held in the Hotel New Yorker.

The ATS and NCTW committee meetings will be held on Friday, Saturday, and Sunday May 18, 19, and 20. Registration will begin and special group meetings will be held on Sunday, May 20. Medical, nursing, and community action sessions will begin on May 21. NTA committees will meet on Wednesday, May 23. General sessions will be on Thursday, May 24, and the NTA Board will meet on Friday, May 25.

Large blocks of rooms have been reserved in the Statler and New Yorker Hotels. Some additional rooms will be available in the Governor Clinton Hotel. It is believed that all registrants can be accommodated in these three hotels.

All reservations should be made through the New York Convention and Visitors Bureau by submitting to the Bureau the reservation form on this page. First, second, and third choices should be indicated. The Bureau will also assist in making reservations in any of the other excellent hotels in New York.

Rooms will be assigned on a "first-come, first-served" basis, and therefore applications should be sent in as soon as possible. *All requests must give a definite date and hour of arrival as well as a date and hour of departure. Names and addresses of all persons who will occupy the rooms requested must be included.*

Persons making room reservations who later find they cannot attend the Meetings should notify the New York Convention and Visitors Bureau without delay.

Hotels

Statler: single, $7-11; double bed, $10-14; twin beds, $11.50-18; two-room suites, $28-30.

New Yorker: single, $6-14; double bed, $9-16; twin beds, $10.50-16; two-room suites, $18-50.

Governor Clinton: single, $6-11; double bed, $8.50-14; twin beds, $10-16; two-room suites, $16-30.

DETACH, FILL OUT, AND MAIL PROMPTLY TO:

Miss Sylvia Peltonen, Manager, Housing Bureau
New York Convention and Visitors Bureau,
90 East 42nd St., New York 17, N.Y.

Please reserve the following accommodations for the Annual Meetings of the NTA, ATS, and NCTW, May 20-25, 1956:

Single Room.....Double Bedded Room.....Twin Bedded Room.....2-Room Suite.....

Rate: From $..... to $..... First choice hotel..... second..... third.....

Arriving at hotel (date and hour).....Leaving hotel (date and hour).....

Name of both persons for each double room or twin bedded room requested, and names and addresses of all persons for whom you are requesting rooms and who will occupy the rooms asked for.....

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.....

Name and address of individual requesting reservations.....

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All reservations must be received prior to May 1, 1956

As A Result of Good Relationships With The Community, Saginaw (Mich.) County Hospital Received Wide Support For Its Plan to Install . . .

TV In Every Room

by V. K. Volk, M.D., Dr.P.H.
Medical Superintendent, Saginaw County Hospital, Saginaw, Michigan.

Everyone recognizes that even the best tuberculosis hospitals are usually lonely places. It is a shock for patients to be away from home, friends, and associates, and to be separated from business or employment, with resulting loss of social and economic security.

Despite occupational therapy, educational and vocational programs, readings, or listening to the radio, many patients become frustrated and discouraged. Thus, it behooves the administration of every tuberculosis hospital to attempt to provide patients not only with adequate treatment but also opportunities for wholesome utilization of their spare time.

In the early days of television we at Saginaw County (Mich.) Hospital were impressed by the enthusiasm for TV shown by the few patients who had their own sets. Other patients went into the rooms of those who had sets and stayed on beyond their physical capacity, and contrary to hospital regulations. As a result of this situation, the hospital administration realized the desirability of having a television set in every room of our 244-bed hospital.

Patients' Morale Everybody's Problem

In an effort to achieve this goal, we first contacted various community groups in regard to donating sets, but in every case the group approached had its own projects and suggested that some other group be tried. This attitude suggested that many considered the tuberculosis problem a specialized problem; but we of the hospital administration felt that it was everybody's problem and that the morale of tuberculosis patients should be of interest to everybody. This approach eventually won support of local groups.

We felt that the groups and organizations supporting our project would be able to provide the necessary funds, and consequently we decided against a public campaign. First we turned to our patients who assured us that not only they but also their families and friends would get behind the project. A Patients Committee was organized and within a few days it raised five hundred dollars, the first contribution towards obtaining 101 television sets.

Support From Ex-Patients Group

Next we approached an ex-patient group, organized since 1941 as the "Alumni Association of Saginaw County Hospital." The association's board of directors agreed to support the project and within nine weeks collected more than three thousand dollars from ex-patients and their families.

After this initial success we established a "Citizens Committee on Television for Every Room at Saginaw County Hospital." Key men in the Congress of Industrial Organizations and the American Federation of Labor, businessmen, suppliers of the Saginaw County Hospital, township supervisors, veterans organizations, and their auxiliaries created their own subcommittees of the Citizens Committee.

Sets Bear Donors' Names

We asked the groups to make their contributions in blocks of one hundred and sixty dollars, the price of a complete TV set, each set to be marked with a plaque bearing the donor's name. The Auto-Lite plant of Bay City contributed beautiful plaques free of charge.

Success in Nine Weeks

At the end of nine weeks the warm response from the community had provided the 101 sets we needed and more than five thousand dollars extra for future needs. Each contributing group received a Certificate of Appreciation from the Hospital's Board of Trustees.

The tremendous success of our "television in every room" project was due in part to the cooperation of the Saginaw *News* which for a number of years has given the County Hospital the type of publicity which created a favorable climate for a project of this kind. At the beginning of our drive, we informed the newspaper's editor of our plan but requested him to withhold any publicity, since we wanted to know how much our friends would do for the patients without newspaper publicity and also because we did not want to compete with two other community drives under way at the time. However, almost every meeting of the citizens committee was attended by a reporter for the purpose of obtaining background material; when the drive was near completion, an article entitled "Television Anonymous" appeared in the *News,* providing wide publicity for the project.

Effect on Patient Morale

Eighteen months after the installation of a television set in every room we can evaluate the effect television has had on patient morale. Television has taken up much of the patients' leisure time with the result that they are staying in bed more willingly than before. The varied entertainment provided has greatly helped their morale. In the many years of our work in the hospital there has never been a project that brought so much happiness, contentment, and relaxation to the patients.

Installation of television has also had an important effect on the hos-

pital's relationship with the community. No less than 86 organizations contributed to the project and through the project have become interested in the hospital and its problems. Patients' letters thanking contributors for the sets have won new friends for the hospital.

Benefits Outweigh Disadvantages

As far as the effect on hospital administration is concerned, the benefits derived from television outweigh the problems created by it. It is true that some patients watch television longer than we want them to and want to see programs that are on after the evening curfew, but the situation is sufficiently under control and does not greatly disturb us.

In conclusion, the success of the "television in every room" project has not only proved to be a "morale booster," but also has improved and strengthened Saginaw Hospital's relations with the community. For example, labor groups gave tremendous support for their former fellow workers now in the hospital; 40 per cent of the sets were contributed by the C.I.O. and the A.F. of L. The fact that the chairman of our Patients Committee was a prominent C.I.O. leader undoubtedly was an important factor in winning labor support. Satisfactory public relations with various community groups, official and unofficial agencies, and the local newspaper made such a project possible.

Any tuberculosis hospital enjoying good community relationships can repeat Saginaw's success.

Nursing Materials Available

Material on facts about tuberculosis nursing in hospitals, basic schools of nursing, and public health nursing services is being sent by the Tuberculosis Nursing Advisory Service, National League for Nursing, to all state and local leagues for nursing, state tuberculosis associations, and state and local Interorganization Committees on Tuberculosis Nursing. Others may obtain this material by writing to the TNAS, 2 Park Ave., New York, 16, N.Y.

TV Fights TB

Stark County, Ohio, project raises funds for TV set in every room of county hospital

"TV to fight TB," a project launched by the Stark County, Ohio, Tuberculosis and Health Association to improve patient morale and reduce leaves against medical advice at the Molly Stark Hospital, has succeeded in placing a television set in every room of the hospital.

Upon request from the association, the four Stark County chapters of the Junior Chamber of Commerce undertook a fund-raising campaign that raised enough money to buy 107 television sets. The project was a community-wide affair supported by many different civic groups as well as individuals.

Prior to launching the campaign, the Stark County association sought the opinion of medical directors of various tuberculosis hospitals on the value of television in boosting patient morale. Forty-two answers were received, all expressing the belief that television was an important morale factor.

Only one of the hospitals queried, the Saginaw (Mich.) County Hospital, had television in every room. Dr. V. K. Volk, Saginaw hospital medical superintendent, assisted the association in planning television for the Stark County hospital.

William M. Morgan, Ph.D., honorary president of the association, vice-president of the Ohio Tuberculosis and Health Association and member of the National Tuberculosis Association Board of Directors, speaking at ceremonies dedicating the television sets, commented that "'TV for TB' is more than a slogan; it is a new type of patient therapy designed to relax the body and mind of the patient faced with a long period of recuperation. These TV sets will be a great boon to the patient but will be of more value to the doctor."

The publicity program accompanying the drive for funds focused attention not only on tuberculosis patients but also on the tuberculosis problem in general, and provided excellent opportunities for health education.

District of Columbia X-rays Capitol Hil

A "Capitol Hill Chest X-ray Survey" staged in Washington, D.C., in May, provided free X-rays for 3,23 persons working on Capitol Hill. T survey was sponsored by the Dist of Columbia Tuberculosis Associa tion, the District Department o Health, and the United States Pub lic Health Service.

Before the survey took place con stituents of the National Tuberculosi Association were requested by th District association to inform con gressional delegations from thei states about the survey. The associa tions were also asked to request dele gation members to make statement and have pictures taken for publi release in their home areas.

Of 12 senators and 102 representa tives who were X-rayed, 40, repre senting 20 states, released statement for publication, while 21 had pictur made showing them getting an X-ray Bi-partisan support for the surve was obtained in both the Senate an the House of Representatives.

Three persons out of 197 with un satisfactory films were found to hav far advanced active tuberculosis an were immediately hospitalized.

Physicians Well Represented

Doctors accounted for 778 registra tions of the record total of 2,601 a the 1955 annual meetings of the Na tional Tuberculosis Association, th American Trudeau Society, and th National Conference of Tuberculosi Workers, a registration analysis has re vealed. The registration of doctor at the 1954 annual meetings was 719.

VA Boards Merge

The two medical advisory boards o the Veterans Administration, the Spe cial Medical Advisory Group and th Council of Chief Consultants, have been merged through absorption of the Council by the SMAG. Dr. Donald S. King, who served on the Council as specialist on tuberculosis, has joined the SMAG in a similar capacity.

Mass. Executive

Archibald Dalton, assistant to NTA managing director, heads Massachusetts league

Archibald W. Dalton, administrative assistant to the managing director of the National Tuberculosis Association, has been named executive director of the Massachusetts Tuberculosis and Health League, succeeding Nelson R. Kraemer, now managing director of the Brooklyn Tuberculosis and Health Association.

Mr. Dalton's career in the field of tuberculosis control began in 1941 when he joined the Ohio Tuberculosis and Health Association as a field representative. Later he became executive secretary of the Columbiana County (Ohio) Public Health League, the position he held prior to joining the NTA in 1947 as an associate in Program Development.

A graduate of the University of New Hampshire, Mr. Dalton took graduate work in social administration at Ohio State University. He is a veteran of World War II and was discharged from the Navy in 1946 with the rank of Lieutenant (j.g.).

Mr. Dalton will assume his duties with the Massachusetts league on November 1.

TB in Korea

. . . *Continued from page* 138

It is in the field of expansion of facilities that American agencies, both voluntary and official, have made their greatest contribution to tuberculosis control in Korea. Many of these new tuberculosis beds, for example, were built with materials and technical assistance of U.S. military personnel as a part of the Armed Forces Aid to Korea Program. Particularly significant is the 100 bed chest unit to be known as the 8th U.S. Army Memorial Chest Hospital which is being erected at Severance Hospital and Medical School in Seoul with $400,000 of building materials provided by the 8th U.S. Army. The Church World Service has been operating a significant pilof tuberculosis control project at Severance Hospital to which various voluntary

Archibald W. Dalton

and public agencies have contributed and other projects are being conducted by War Relief Services and other missionary and voluntary groups. The American-Korean Foundation alone has received and sent to Korea contributions from American drug manufacturers of drugs, many for use in the treatment of tuberculosis, valued at over $2,000,000.

Fifth of the objectives is the increased training of professional personnel: physicians, nurses, X-ray technicians and health educators. This phase of the program is probably at this time being more rapidly implemented than any other. A National Tuberculosis Center has been established with the assistance of the American-Korean Foundation, the training of physicians, nurses and public health workers in Korea has been substantially improved and expanded, and with the aid of the American College of Chest Physicians, state and local health departments, individual hospitals and others, the American-Korean Foundation has helped 131 Korean physicians to come to the United States for advanced training in clinical tuberculosis, chest surgery, and public health. Institutions and agencies in the United States where this training is being undertaken have been consistently enthusiastic over the aptitude and ability of this group.

The sixth and final objective, which like the others is quite familiar to those interested in tuberculosis control in the United States, is the strengthening of the administrative organization for tuberculosis control within the Ministry of Health and Social Affairs and the provincial governments and the securing of adequate financing.

Today Korea probably has the highest tuberculosis rate of any nation of the world. This newest of free nations recognizes clearly, however, that its political and economic survival is dependent upon the health of its people. Despite the size of the problem, the post-war chaos and inflation, and the general lack of funds because of the tremendous percentage of its national income which must be devoted to military defense, Korea is facing the problem of conquering tuberculosis with the same courage and determination it demonstrated against almost equally insurmountable odds in withstanding military aggression.

ATS Abstracts

The American Trudeau Society is inviting submission of abstracts of scientific papers for presentation in the medical sessions of its next annual meeting, New York City, May 21-23, 1956. Six copies of the extracts must be in the hands of the chairman of the Medical Sessions Committee on or before January 1, 1956.

Ohio Physicians Course

A postgraduate course in pulmonary diseases designed for general practitioners will be held at the Ohio State University Health Center, Columbus, October 7-8, 1955. The course, sponsored by the Ohio State University College of Medicine, the Ohio State Medical Association, the Ohio Tuberculosis and Health Association, and the Ohio Trudeau Society, is limited to 150 physicians. Information may be obtained from Bernard Lachner, treasurer, Ohio Tuberculosis Hospital, Columbus 10, Ohio.

Bequest Funds

Budget deficit solved by using bequest reserves to finance certain projects

Use of the bequest reserves to finance the budget deficit of $86,678 has been recommended by the 1954-55 Budget Committee of the National Tuberculosis Association and approved by the Board of Directors.

The committee recommended that the managing director, in consultation with the presidents of the NTA, the American Trudeau Society, the National Conference of Tuberculosis Workers, and the chairman of the budget committee designate that some budget items be financed from special bequest reserves in amounts not exceeding the sum of the deficit.

There follows a list of the donors of special bequest funds and the projects approved for financing from each fund:

Zelma Baylos: research on metabolic studies with carbon 14 ring labeled PAS by Lloyd J. Roth, M.D.

Nanette Chesebrough: research on vaccination against tuberculosis by H. Stuart Willis, M.D.

Adelaide A. Falk: third year of three-year demonstrations in Kentucky and Louisiana; research on tissue culture studies on resistance to tuberculosis by Morgan Berthong, M.D.

Sophie Goman: first year of a three-year demonstration in Colorado; research on virulence, immunity, and allergy in tuberculosis by Sidney Raffel, M.D.; research on proteins of the tubercle bacillus and tuberculous tissue by Florence B. Seibert, Ph.D.; research on host-parasite relationships in tuberculosis by Walsh McDermott, M.D.

Grace Velie Harris: second year of a three-year demonstration in North Carolina; research on serological diagnosis of tuberculosis by Leon R. Cole, M.D.; research on tuberculostatic substances in mammalian tissues by Quentin N. Myrvik, Ph.D.

Joseph E. Lopez: research on bacteriophage in Mycobacterium tuberculosis by William B. Redmond, Ph.D.

Sarah P. Matney: research on the effect of bacteriophage infection by Seymour Froman, Ph.D.

William Schwinger: demonstration program on "Health Education for Patients with Low Reading Ability in a Tuberculosis Hospital"; Seal Sale demonstrations in Kentucky, Louisiana, North Carolina, and Colorado.

The budget committee also recommended the use of bequest reserves in limited amounts to finance special projects in social research which may be developed in cooperation with other associations or agencies.

PEOPLE

Dr. L. E. Smith, who was executive secretary of the Kentucky Tuberculosis Association 1930-51 and a winner of the NCTW certificate of recognition for contributions to the Conference and to the field at large, died on August 30.

Merwin L. Noble, executive secretary of the Alameda County (Cal.) Tuberculosis and Health Association, has been named executive secretary of the Los Angeles County Tuberculosis and Health Association.

New officers of the Wisconsin Anti-Tuberculosis Association are: president, **Dr. Henry A. Anderson;** first vice-president, **Harry G. Marsh;** second vice-president, **Dr. Carl N. Neupert;** secretary, **Dr. Elwood W. Mason;** and treasurer, **S. L. Rewey.**

Robert D. Ragsdale, executive secretary of the Trumbull County (Ohio) Tuberculosis and Health Association, has been named executive secretary of the Hennepin County (Minn.) Tuberculosis Association.

Miss Sheila Dwyer resigned August 1 as assistant director and nursing education consultant for the Tuberculosis Nursing Advisory Service, National League for Nursing, to accept a position with the in-service education program at Kentucky and West Virginia hospitals under the United Mine Workers Welfare Fund.

Stanley Seiderman, a social work fellowship student co-sponsored by the New York Tuberculosis and Health Association and the NTA during the 1954-55 academic year, was nominated "man of the year" by the faculty of the Boston University School of Social Work at his graduation in June.

Dr. Fred G. Holmes, past president of the Arizona Tuberculosis and Health Association and a member of the Board of Directors of the National Tuberculosis Association 1933-37 and 1949-55, was drowned off the coast of California in August together with his son, **Dr. Fred W. Holmes,** and two grandsons.

Dr. M. Ralph Hadley has been unanimously elected president of the McKeesport (Pa.) Hospital staff physicians, becoming the first Negro in the McKeesport area to serve in such capacity.

Drs. David T. Carr, William H. Feldman, John D. Steele, and **H. Stuart Willis** have been appointed honorary members of the Sociedad Peruana de Tisiologia, Lima, Peru.